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The Fear of Missing Out Phenomenon and Belongingness in Secondary Students

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The Fear of Missing Out Phenomenon and Belongingness in Secondary Students

by

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A culminating thesis submitted to the faculty of Dominican University of California

in partial fulfillment of the requirements for the degree of Master of Science in

Education

Dominican University of California

San Rafael, CA

May 2021

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Abstract

In the networks of student lives and the pervasive presence of social media in their lives, there is an increasingly important need to understand the dynamics that affect students' well being and availability to being present with learning. This qualitative study sought to understand how FOMO (Fear Of Missing Out), defined as “a pervasive apprehension that others might be having rewarding experiences from which one is absent” (Przybylski et. al, 2013, p. 1841), impacts students of color at one independent secondary school in Northern California and has been documented as having an impact on learning, health, and safety. The researcher conducted personal interviews with six students of color in grades seven and eight, under the design of a constructivist worldview. This research found that students had surprising grassroots systems of support largely disconnected from social media, and that when technology was involved, it was more often through real time gameplay as compared to social networking sites. Implications of this study include schools and teachers taking the lead in implementing steps to foster community building and student belongingness, such as allowing time for students to talk and connect before classes, during class, and through a varied weekly schedule. Creating opportunities for small group interactions could include advisory groups as well as purposefully working to connect as a school community and within the surrounding community, perhaps through service and volunteer days. Additionally, schools can work alongside policy makers to enlist social media sites to fund research and inform users of signs and steps to take if experiencing extreme FOMO and social media use.

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FOMO lures us out of our integrity with whispers about what we could or should be doing.

- Brene Brown, found in Baker, et al., 2016
p. 275

Within each of us there is an intense need to feel that we belong. This feeling of unity and togetherness comes through the warmth of a smile, a handshake, or a hug, through laughter and unspoken demonstrations of love. It comes in the quiet, reverent moments of soft conversation and in listening.

- William Bradford

I feel like if I am in need I always have someone to talk to. A big thing of feeling cared for is being included, and I feel like I am definitely included in things, which is nice.

- Nathan, 8th grade student

Chapter 1: Introduction

Social media has been at the root of a few major schisms faced in the small school community at which I have worked for many years. This led to hurt feelings, a collective look at cyberbullying, and the integration of conflict resolution sessions. Having a safe place to learn and make mistakes was identified as a key aspect of the school culture that needed to be more deeply nourished. It was particularly challenging when a student created an anonymous Instagram account and posted hurtful messages about the school and various other students. This experience both informed and inspired the direction of this research.

The invention of the World Wide Web in the early 1990's opened the door to modern technological devices such as the smartphone that are changing the way we interact socially (Pew, 2014). The popularity of social media to connect is growing exponentially with both adults and teenagers. In 2015 Facebook reached over one billion members (Facebook, 2017) and Instagram boasted 500 million users who uploaded 95 million photos daily (Instagram, 2017). Worldwide, the Pew Research Center has reported that Facebook is currently the most popular social media site with teens (71% use it), with Instagram (52%) and Snapchat (41%) following in popularity (Lenhart, 2015).

Teens have been adopting and using the new technologies and social media as part of their daily life. According to Common Sense Media's 2015 Census, almost 70% of teens own a smartphone, and listening to music and participating with social media on smartphones are the two most popular activities for teens on the phone where social networking sites were being checked by just over half of teens (51%) at least once a day,

with a quarter of those polled checking it over 10 times a day (Rideout, 2015). Negative impacts of digital devices used for SMS include: cyberbullying, sexting, depression, Internet addiction, and sleep deprivation (Challenge Success, 2017). Anonymous communication through disguised identity or a fake profile can also lead to negative outcomes (Common Sense, 2009). Other costs come with the constant updating and availability of smartphones, and as Harris (2016) shared there is a cost to distraction from deep thought. Namely, “an average of 23 min is needed to refocus after a tech interruption” (Harris, 2016, minute 4:24).

Statement of Purpose

The review of the literature revealed three major themes, including the origin and evolution of the concept called Fear of Missing Out (FOMO), the correlative frameworks of Self-Determination Theory (SDT) and Relative Deprivation Theory, and the impacts of FOMO on education, including learning and health. Social media makes it easy to connect with social networks and stay informed in real time. FOMO is defined as “a pervasive apprehension that others might be having rewarding experiences from which one is absent” and it is “characterized by the desire to stay continually connected with what others are doing” (Przybylski et. al, 2013, p. 1841). It has been found that in adolescents with high levels of the need to belong and the need for popularity, their levels of FOMO were increased (Beyens et al., 2016). FOMO was first coined and applied in the business sector, as a marketing strategy to supplant the current brand theory and exploit consumers’ desires to try a wide variety of new products. Later, it was applied to social gatherings and social media, with formal study by Przybylski in 2013 in the field of Psychology. In learning, FOMO can cause distraction in some students, and can also

impact the health of students beyond the classroom, through disruptions to sleep and meals due to social media use.

The Pew Research Center study found gaps in the research on socioeconomic and racial and ethnic differences in access to technology, particularly computers and smartphones, and also in how the technology was used and for how long (Lenhart, 2015). There are also deficiencies in understanding gender differences in smartphone use, as girls text more and use social media more, where boys choose to use video games and console access (Lenhart, 2015; Oberst et al., 2016).

Deci and Ryan's (1985) Self-Determination Theory, SDT, defined as "a macro-theory of human motivation [that] provides a useful perspective for framing an empirically based understanding of FOMO" (Przybylski et al., 2013, p. 1841). The premise is that there are three important needs (competence, autonomy, and relatedness) that people seek to meet, and that they drive social actions. In the context of education, this provides a framework to look holistically at human relationships, including in the context of a learning environment, and to understand those places where students may experience some feeling of a need not being met, and which can be identified as a fear of missing out. Relative Deprivation Theory also contributes to experiencing FOMO, as it is a feeling of having less of something, such as money or social status, when compared to others.

It has been found that the drive to use social media sites correlates with decreasing self-esteem (Buglass et al., 2016). This is uncharted territory for many parents of secondary students. Teachers are faced with navigating the challenges of technology today.

A gap in the literature identified how teens at secondary school experience FOMO on social media. There was a need to understand possible impacts of FOMO on students of color. The purpose of this qualitative study was to examine the gap in how FOMO on social media impacts middle school students of color at one independent secondary school in Northern California.

Overview of the Research Design

A qualitative study with a constructivist worldview and a phenomenological design was used to examine the FOMO phenomenon on secondary students. This primary research question was: how do a select group of eight students of color from seventh and eighth grades experience FOMO at one predominantly white independent school?

The research was conducted at an independent secondary school in Northern California, in a rural setting close to several large cities. The secondary school, at which the researcher also served as a teacher, had 50 seventh and eighth grade students, ages 12 – 14. Twelve of those students at the time were students of color. The participants in this study were in either seventh or eighth grade. The group included five boys and one girl, and all of whom were students of color. This research relied on open-ended interview questions in the natural setting of the participants, involved listening carefully to what participants said, and drew subjective meaning from the shared experiences of participants.

The researcher acknowledges that bias is inherent in qualitative research and this study and that the personal beliefs and values of the researcher influenced this work. The researcher is of a different race than the participants, different age, and has different lived experiences that shaped the researcher's perceptions, observations, and interpretations.

The researcher was a teacher to all the participants, as well as an advisor and parent liaison to two of the participants. Because of this relationship, the researcher is in a position of power. Hopes for the study included learning about the unique experiences of this group of students, the potential to offer support on this topic, and to enable education for families and the school around this subject. Effort was made to minimize the impact of bias in the research, including using an interview protocol, allowing the participant to read over the interview transcript, and the option for the participant to leave the study at any time without any repercussions.

Significance of the Study

The findings showed that FOMO was experienced by each participant, but for the most part, it was not on social media, as the literature had suggested. Instead it was found that students had surprising grassroots systems of support largely disconnected from social media, and that when technology was involved, it was more often through real time gameplay as compared to social networking sites such as Instagram. Live conversation and messaging were a natural extension of interaction and connection when not at school and were the preferred methods of keeping in touch with peers. Real time connection opportunities were found to be more engaging and useful, whether connecting for fun while playing video games or for seeking out help with homework due the next day. Two of the participants did use Instagram on occasion, though it was primarily to stay up-to-date with brand product launches, and one participant limitedly kept up with old friends from out of state on this platform. Connecting in school allowed for participants to know their friend's in-jokes and to feel included. A varied weekly school day schedule in a small community allowed for many opportunities to connect. Missing large events led to

disappointment, but having friends outside of school and support from family in meeting up were helpful in mitigating feelings of missing out.

Gaps identified in the research included limited studies on FOMO and social media with secondary students and students of color. This study contributes to the field, though the findings were not concurrent with the general findings around FOMO and social media sites, (SMS), for teens, as the participants in this study for the most part did not engage in social media use or experience FOMO through this lens. This study focused on the secondary school level, where most studies to date drew upon college age or older populations. The study was located in Northern California, which is also underrepresented in the literature.

Texting in general was the most adapted technology, and provided in the moment interaction when not together. Connecting through other real time platforms was a surprising finding, such as live conversation or messaging peers while playing video games with them, and this too superseded interest in social media use. FOMO was experienced by participants, however, unlike the literature findings, this study found that FOMO was in play for the most part around gatherings. When participants were not invited to large or novel gatherings, or did not receive an invitation, FOMO was experienced.

Research Implications

Implications of the findings are actionable for key players, as teachers, schools, and policymakers can enact change in order to promote connection, healthy relationships, and ultimately better learning environments. Teachers can implement teaching strategies in lessons to “legalize” student conversation so they have time to catch up and network in

person, and thereby build in “natural” moments of connection for students. Schools can partner with parents and students around how to handle instances and create inclusion in which FOMO may be experienced, such as more momentous events such as parties and large group gatherings. Schools can offer advisory groups to serve as a small base group of students to aid daily connection. Schools can set limits that benefit students, such as implementing a no cell phone policy during class. Schools can also take the lead in developing the grassroots networks of support within their individual communities and in this case community building events are beneficial. Schools and policymakers can collaborate with social media sites to study FOMO and to create information and guidelines for users who experience FOMO and are then driven to excessive use of social media.

Chapter 2: Review of the Literature

A growing body of research is confirming that teens are adopting and using the new technologies and social media as part of their daily life. Common Sense Media reports nearly 70% of teens own a smartphone, and listening to music and participating with social media on smartphones are the two of the most popular activities for teens on the phone (Rideout, 2015). Social networking sites are checked by just over half of teens (51%) at least once a day, and a quarter of those polled reported checking social media over 10 times a day. Documented negative impacts of digital device use for social media sites, (SMS), include: cyberbullying, sexting, depression, Internet addiction, and sleep deprivation (Challenge Success, 2017). In addition, anonymous communication through disguised identity or a fake profile can also lead to negative outcomes (Common Sense, 2009). Particularly relevant to young people and the context of learning, Harris (2016) also reports that “an average of 23 min is needed to refocus after a tech interruption” (min. 4:24) as an additional cost on focus and attention. Social media makes it easy to connect with social networks and stay informed in real time, however this distraction of attention, and tendency to focus on comparison and the lives of others, has led to greater investigation into the psychological phenomenon called the Fear of Missing Out (FOMO). This phenomenon also has interesting correlates in Relative Deprivation Theory and Self Determination Theory, which also address feelings of need, relevance, and belonging. An increasing number of studies are also looking directly at FOMO in the context of learning and impact on the wellbeing of young people.

The Coining of “FOMO”

FOMO is defined as “a pervasive apprehension that others might be having rewarding experiences from which one is absent” and it is “characterized by the desire to stay continually connected with what others are doing” (Przybylski et al., 2013, p. 1841). It has been found that adolescents with high levels of the need to belong and the need for popularity had increased the prevalence of FOMO (Beyens et al., 2016). The Pew Research Center study identified gaps in the research on socioeconomic and racial and ethnic differences in access to technology, particularly computers and smartphones, and also in how the technology was used and for how long (Lenhart, 2015). Deficiencies exist in understanding gender differences in smartphone use, with findings showing that girls text more and use social media more, where boys choose to use video games and console access (Lenhart, 2015; Oberst et al., 2016).

FOMO was first identified as a phenomenon by marketing strategist Dr. Dan Herman (Reagle, 2015, para. 10) who published the first academic paper on the topic “Introducing short term brands: A new branding tool for a new consumer reality (2000)” in *The Journal of Brand Management* where he noted an opportunity to make the most of the erosion of consumer loyalty to brands. Through research conducted in the mid 1990s, he found that consumers regularly move on to new products and he proposed the feasibility of short term brands, upending traditional brand theory that had only developed and marketed brands for the long term. Herman called the change in consumer preference and behavior “radical” with “unprecedented openness to try, both new products and new brands” (Herman, 2000, p. 4). Herman noted that both long and short term brands meet basic human needs: “The emerging portrait is a person and consumer

who is led by a new basic motivation: ambition to exhaust all possibilities and the fear of missing out on something” (p. 7). In the evolving landscape of choice in lifestyle and all that entails in the modern era of consumerism, he posited that this new phenomenon was the downfall of brand loyalty. Herman also claims to have developed the term FOMO, “I first observed this phenomenon that I later named ‘The Fear of Missing Out’ in the mid 90's, while listening to consumers at focus groups and during individual in-depth interviews” (Herman, 2010, para.1). He recalls that:

It struck me as an extremely significant new development in consumer psychology, and in the following years I have been researching FOMO as a socio-cultural phenomenon, as a motivation, and as a personality factor. Having studied its implications for marketers, my belief is that this motivation might be one of the central factors in the decline of brand loyalty. (Herman, 2010, para. 1)

Herman also outlined various methods for brand marketing to play off the phenomenon, from using FOMO to resisting it. The marketing firm J. Walter Thompson (JWT) describes this in a study Herman contributed to, “marketing campaigns are both inducing consumer fears of missing out and positioning products as tools for preventing FOMO and keeping up with the fast pace of life” (Vaughn, 2012, p.13). Examples that were provided included Smirnoff’s 2009 campaign “Be There,” which played up FOMO by holding special evening events globally that included a partnership with Madonna and Heineken’s 2011 campaign “Sunrise,” that promoted responsible drinking in order to enjoy the morning after drinking.

Venture capitalist Patrick McGinnis has also been credited with advancing the term “FOMO” in an article for the Harvard Business School journal *Harbus* in 2004.

McGinnis used the term in a story that described Harvard Business school students agreeing to and overbooking events to pursue connection opportunities through networking. He coins the term Fear of a Better Option (FOBO), in relation to college students who do not accept invitations in order to keep their options open:

...in one night, a person who suffers from deep FOMO sees as many as 70-80 people... Given the incredible stamina needed to sustain a FOMO lifestyle, many HBS students seek to impose order on their lives and instead seek to commit to single activities with fixed groups of people. While this decision looks healthy on the surface, there are risks with this approach to life as well. I call this complication FOBO. FOBO, or Fear Of a Better Option, drives us in the other direction from FOMO. (McGinnis, 2004)

McGinnis later reflected on the phenomenon and how FOBO was distinct as a result of social media which had the capacity to provide access to an exponentially larger range of possibilities of events that were available to college students. He described in an interview with *Boston Magazine*:

You'd always have trouble getting people to commit, and I think that was a new phenomenon at the time, because before the age of mass social media, people made plans and then they stuck with them. Because what else were you going to do? And so you'd make a plan for Friday night and you'd go somewhere, and you'd stay there, and that's what you did. (Schreckinger, 2014, para. 9)

McGinnis also noted that in leadership, FOMO can lead to pursuing too many options ineffectively where FOBO can lead to inaction due to waiting for more options or analyzing data in order to make a decision (Kozodoy, 2017, para. 8). The anecdote

McGinnis proposed for managers stuck in FOBO is to “accept that decisions come with downsides, trade-offs, and the risk of failure” and to make a decision to get out of inaction due to FOBO (Kozodoy, 2017, para. 13).

FOMO continued to play a role in the marketing world that later included the realm of social media. In 2011, J. Walter Thompson (JWT), a marketing communication firm, shared a report on their findings of people surveyed about FOMO and social media. JWT defined FOMO as “the uneasy and sometimes all-consuming feeling that you’re missing out – that your peers are doing, in the know about, or in possession of more or something better than you” (Przybylski et al., 2013, p. 1842). The marketing firm observed a response in a subset of those studied as a result of their use of social media. They found that, “young adults and teens expressed feelings of missing out more than any other generation when seeing via social media that their friends are doing something they’re not, buying something they’re not or finding out something before they do” (Vaughn, 2012, p. 10). Their survey of 768 adults and 60 teens found that FOMO impacted young adults much more” (Przybylski et al., 2013, p. 6). One aim of their work was to determine opportunities for brands looking to exploit the FOMO phenomenon, and they suggested that brands could do this by “easing it, escalating it, making light of it, turning it into a positive, and helping people live with it” (Vaughn, 2012, p. 18). Advertising often escalates feelings of FOMO by showing how much fun people are having with their product, which has the possibility to fulfill a basic human need. FOMO was also viewed as a means of increasing sales: “FOMO has the potential to drive spending, since it heightens participation on social media platforms and motivates consumers to do more.” (Vaughn, 2012, p.17). Teens and young adults are especially

exploitable. It has been noted that, “They will be particularly receptive to messaging and strategies that tap into FOMO and will welcome solutions, even when they didn’t know they needed them” (Vaughn, 2012, p. 18). JWT also clarifies what FOMO is, “The important thing to keep in mind with FOMO is that it’s not just a state of mind; it is also a physical reaction” (Vaughn, 2012, p. 4). In their 2012 update of their report on FOMO, they included Herman as an expert and influencer.

Reagle (2015) defined FOMO as “envy-related anxiety about missed experiences (fear of missing out) *and* belonging (fear of being left out)” (para. 5). He posits that this is not a new phenomenon, “although FOMO is often seen as a recent phenomenon, I argue it is a continuation of a centuries-old concern and discourse about media-prompted envy and anxiety (i.e., “keeping up with the Joneses” and *neurasthenia*)” (Reagle, 2015, para. 5). He traces the rise of the term, even noting that on Urban Dictionary it had the best-liked definition in 2006: “the fear that if you miss a party or event you will miss out on something great” (Reagle, 2015, para. 7). Reagle goes on to say that, by 2010, FOMO was linked to social media use and was in widespread use, and in 2012, it was “recognized by the Oxford Dictionaries as the ‘Anxiety that an exciting or interesting event may currently be happening elsewhere, often aroused by posts seen on a social media website’” (Reagle, 2015, para. 10).

Relative Deprivation Theory

Relative deprivation theory was introduced in 1949 after World War I by sociologist Samuel Stoffer, who studied soldiers who were experiencing unexpected reactions with their circumstances (Smith & Pettigrew, 2015). From this work, the social theory developed and is defined by the American Psychological Association (2020) as

“the perception by an individual that the amount of a desired resource (e.g., money, social status) he or she has is less than some comparison standard” (para. 1). Relating this theory to FOMO and the way social media can influence psychology and a sense of wellbeing, users of social media are apt to compare content with their own lives, and it is easy to view the lives of celebrities as well as family members. “Social media brings us closer to other echelons yet simultaneously back down to reality” (Vaughn, 2012, p. 6). However, it is comparison to one’s peer group that plays the key role in inciting feelings of relative deprivation. The peer group is a closer base for comparison, and, thus, “people are more susceptible to relative deprivation when they see that those with whom they compare themselves are engaging in enviable experiences” (Vaughn, 2012, p. 6). It is understood that marketing can create FOMO or prevent FOMO, depending on the product and strategy, but the impact goes deeper than simply influencing the desire to buy something being advertised; it can affect a sense of motivation and agency, as well as a sense of belonging.

Self Determination Theory and the Need To Belong

Deci and Ryan’s (1985) Self-Determination Theory (SDT) is considered another key theory in understanding human motivation. SDT is defined as “a macro-theory of human motivation (that) provides a useful perspective for framing an empirically based understanding of FOMO” (Przybylski et al., 2013, p. 1841). The premise of the theory is that there are three important needs—competence, autonomy, and relatedness—that people seek to meet, and this seeking drives social actions. These three needs are described with more detail in this way:

According to SDT effective self-regulation and psychological health are based on the satisfaction of three basic psychological needs: competence – the capacity to effectively act on the world, autonomy – self authorship or personal initiative, and relatedness – closeness or connectedness with others...Through this theoretical lens, the FOMO phenomenon can be understood as self-regulatory limbo arising from situational or chronic deficits in psychological need satisfactions. (Przybylski et al., 2013, p.1841)

According to this theory, psychological wellbeing is impacted when these three basic needs are either met or not. “SDT proposes that the degree to which any of these three psychological needs is unsupported or thwarted within a social context will have a robust detrimental impact on wellness in that setting” (Deci & Ryan, 1985; 2000, para. 2). Deci and Ryan stress that “relatedness, which has to do with the development and maintenance of close personal relationships such as best friends and romantic partners as well as belonging to groups... the highest quality personal relationships are ones in which each partner supports the autonomy, competence, and relatedness needs of the other” (1985; 2000, para. 12). To date, scholarly research has examined SDT in fields that include: education, organizations, sport and physical activity, religion, health and medicine, parenting, virtual environments and media, close relationships, and psychotherapy, finding that across these fields impacts relationships and sense of belonging, which has been shown to impact the ability to enter into, as well as to maintain, healthy relationships (Deci & Ryan, 1985, 2000).

Defining the need to belong as a means of understanding human behavior was the goal of a meta-analysis conducted by Baumeister and Leary (1995). They began with the

belongingness hypothesis, which is “a fundamental interpersonal motive,” as human beings “have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships” (Baumeister & Leary, 1995, p. 495). The need to belong, defined as the desire for interpersonal attachments, is posited as frequent interaction plus persistent caring, was found to be a fundamental human motivation by the researchers. This need is helpful in understanding human motivation and behavior, as well as the positive and negative effects of this need. Here the need to belong is described,

Again and again, we found evidence of a basic desire to form social attachments.

People form social bonds readily, even under seemingly adverse conditions.

People who have anything in common, who share common (even unpleasant) experiences, or who simply are exposed to each other frequently tend to form friendships or other attachments. Moreover, people resist losing attachments and breaking social bonds, even if there is no material or pragmatic reason to maintain the bond and even if maintaining it would be difficult...Abundant evidence also attests that the need to belong shapes emotion and cognition. Forming or solidifying social attachments generally produces positive emotion, whereas real, imagined, or even potential threats to social bonds generate a variety of unpleasant emotional states. (Baumeister & Leary, 1995, p. 520)

Leary developed the Need to Belong scale in 2000, with an update in 2013. The ten-item Likert scale uses both positive and negative questions that address belongingness and how it affects people. Questions include: “It bothers me a great deal when I am not included in others plans,” “If other people don’t seem to accept me, I don’t let it bother

me,” and “I try hard not to do things that will make other people avoid or reject me” (Leary, 2013, p. 2).

Scholarly Analysis of FOMO

Przybylski et al. (2013) was one of the first team of scholars to study and define FOMO; their aim was to “advance an empirically-based and theoretically-meaningful framing of the fear of missing out phenomenon” (p. 1842). Przybylski and colleagues posited that by applying Deci and Ryan’s self-determination theory to view motivation as the theoretical lens, “the FOMO phenomenon can be understood as self-regulatory limbo arising from situational or chronic deficits in psychological need satisfactions” (Przybylski et al., 2013, p. 1842).

The Fear of Missing Out Scale, FOMOs, was developed by Przybylski and colleagues to test FOMO, and it utilized self-determination theory to frame the survey. The ten-item scale is a self-reporting measure Likert scale, and is “sensitive to those who evince low, moderate, and high levels of fear of missing out construct as an individual difference” (Przybylski et al., 2013, p. 1844). The questions examine each category of SDT, namely, competence, autonomy, and relatedness. Data was collected from a diverse international sample of 1,013 adults ages 18 to 62 through online recruitment to ensure wide application and fit. Questions included, “I fear my friends have more rewarding experiences than me,” and “It is important that I understand my friends’ ‘in jokes”” (Przybylski et al., 2013,p.2).

FOMO and Student Learning

Several studies have looked into how FOMO impacts student learning (Alt, 2015; Beyens et al., 2016; Thornton et al., 2014). It was found that FOMO does impact

learning, both in the classroom and in learning motivation factors. For instance, Alt (2015) found that “extrinsically and a-motivated (an absence of motivation) students would be more likely to use social media tools available in the classroom” (p. 116) than intrinsically motivated students. This study was limited in scope and recommended future study of how social media could be used in learning and how it affects learning motivation (Alt, 2015, p. 118). The role of technology in providing various means of distraction also play an important role in learning and studying in school. According to Stanford’s Challenge Success (2017), a nonprofit affiliation with the mission of redefining what success is through reforming schools, “schools that restrict access to mobile phones subsequently experience an improvement in test scores. Banning mobile phones improves outcomes for the low-achieving students the most.” (p.7) Adolescents who stay up late while using their devices can also suffer due to disruption of their sleep cycle caused by the light of the device (Challenge Success, 2017). There are also costs to distraction connected with learning, at the college level. Thornton et al., (2014) found that students who were distracted by texting on cell phones took more time to complete a task than their peers who were not (p. 480). Even more shocking was the finding by Thornton et al., that just the presence of a cell phone is “capable of creating a distraction from the immediate task or situation at hand and elicit awareness of that wider social network that one is not part of at the moment,” (p. 486) this includes learning environments and schools. Because FOMO is linked to SMS use, Beyens identified it as a “viscous cycle in which FOMO may drive people toward social media, which, in turn, may further increase adolescents’ FOMO. Research is needed to test this idea of reinforcing spirals in the relationship between adolescents’ FOMO and social media use”

(Beyens et al., 2016, p. 6). Education is a field that uses technology both in and out of the classroom with the purpose of attaining knowledge, and there is a need for studies that examine social media's impact on this field (Guadagno et al., 2016, p. 214).

Alternatively, there are also benefits to learning from interacting with digital and social media. In a report by Reid Chassiakos, et al., (2016) these included: “early learning, exposure to new ideas and knowledge, increased opportunities for social contact and support and new opportunities to access health promotion messages (p. e1).”

FOMO and Health

FOMO is prevalent in younger people, and can impact sleep, meals, and even safety (Beyens et al., 2016, p.6; Przybylski et al., 2013). In a study on college age students, people with high levels of FOMO checked Facebook “more immediately after waking, before going to sleep, and during meals... during university lectures... and while operating motor vehicles” (Przybylski et al., 2013, p. 1847). In another study, FOMO was found to affect youth more and that FOMO levels decreased with age, thus “younger participants, younger men in particular, tended to report the highest levels of FOMO” (Przybylski et al., 2013, p. 1844). Those with high FOMO are more likely to be less healthy, mindful, and can be depressed (Baker et al., 2016). Participants with “less satisfaction of the needs for competence, autonomy, and relatedness reported higher levels of FOMO, a significant trend holding variability in participant age and gender” (Przybylski et al., 2016, p. 1845). Future research is needed to study if adolescents’ levels of FOMO are higher than that of college age students and how it impacts their health.

Since being excluded from social activities can cause social pain, social media can positively and negatively impact the human need to belong. Social exclusion can lead

to social pain, what Eisenberger and Lieberman (2004) describe as “arising from the perception of actual or potential psychological distance from close others or social groups” and it can include social activities (as cited in Lai et al., 2016, p. 516). In a study on the brain, social exclusion led to higher activation than inclusion did in the right middle temporal gyrus, the part of the brain responsible for processing social stimuli (Lai et al., 2016, p. 519). “People with higher Fear of Missing Out seem to have a greater attention towards the state of mind of others involved in positive social interactions and show a higher need [for] approval...that could lead to an increasing use of social media which could favor a possible addiction” (Lai et al., 2016, p. 521).

Since adolescents are targeted by marketers, new media is expanding the ways in which advertising messages are reached. For example, “restrictions may exist to limit exposure to advertisements for alcohol in traditional media, research suggests that the major alcohol brands maintain a strong presence on Facebook, Twitter, and YouTube” (Reid Chassiakos et al., 2016, p. e3-e4). Social media advertisements can also target content a user shares, personalizing it, and may be interactive in nature (Reid Chassiakos et al., 2016, p. e4). Buglass, et al., (2016) looked into how social media use affected individual online vulnerability, defined as a “capacity to experience detriments to their psychological, reputational, or physical wellbeing” (p. 248). Negative aspects included “identity theft, cyber harassment, stranger danger,” as well as “data misuse, online harassment, and exposure to inappropriate content” (Buglass et al., 2016, p. 248).

There are possible benefits to using social media, particularly in understanding others. The American Academy of Pediatrics (2016) published a study that examined the benefits and risks of children due to the rise in media use over the previous decade (Reid

Chassiakos et al., 2016); they found that “social media use in moderation can enhance social support and connection” (Reid Chassiakos et al., 2016, p. e9). Their study showed that like how reading literary fiction can improve empathy in children (Kidd & Castano, 2013), there is hope that the Internet may work similarly to help children learn about, understand, and empathize with marginalized groups. Also, social media was found in obesity or mental health patients to “foster social inclusion or peer-to-peer connection” (Reid Chassiakos et al., 2016, p. e6). Other support networks online can benefit the LGBTQI community, those with illness, and disabilities (Reid Chassiakos et al., 2016, p. e6). Other positive findings by Common Sense Media (2009) of social media use include: supporting charities, volunteering, being creative, and studying.

Conclusion

The recent discovery of the fear of missing out phenomena (FOMO), in conjunction with the field of psychological study of social media provides academic research from which this study aims to contribute. A review of the academic research includes information from a number of studies that frame the context and need for this study, focusing on both FOMO and learning and FOMO and adolescent health.

FOMO was defined by researchers Przybylski et al. (2013) as “a pervasive apprehension that others might be having rewarding experiences from which one is absent” and is “characterized by the desire to stay continually connected with what others are doing (1841).” This work was superseded by preliminary industry reports conducted by worldwide marketing communication firm J. Walter Thompson and through social media psychological research, which dates back to the 1990s (Gaudagno et al., 2016).

Understanding FOMO and student learning can inform teachers and families alike. Several studies have looked into how FOMO impacts student learning, finding that FOMO does impact student learning, both in the classroom and in learning motivation factors (Alt, 2015; Beyens et al., 2016; Thornton et al., 2014). In some instances, extrinsically motivated students were found to use social media during class (Alt, 2015). It was found also that FOMO can lead to increased social media use, which then increases FOMO (Beyens et al., 2016). Research is needed to test the idea of negative reinforcing spirals as the driving factor between adolescents' FOMO and increased social media use and how this in turn could impact learning (Beyens et al., 2016).

Due to the fact that FOMO is prevalent in younger people, understanding how FOMO impacts the health of adolescents is important. FOMO impacts sleep, meals, and even safety (Beyens et al., 2016, p. 6; Przybylski et al., 2016). Participants with “less satisfaction of the needs for competence, autonomy, and relatedness reported higher levels of FOMO, a significant trend holding variability in participant age and gender” (Przybylski et al., 2016, p. 1845). Since being excluded from social activities can cause social pain, social media can either positively or negatively impact the human need to belong. For those who do show a higher need of approval, “that (need) could lead to an increasing use of social media which could favor a possible addiction” (Lai et al., 2016, p. 521). FOMO and social media have also been used to aid inclusion when used in moderation and could ultimately lead to better understanding of marginalized groups, such as students of color (Reid Chassiakos et al., 2016).

This study aims to contribute to and fill gaps in the literature on teens and FOMO due to social media use. The aim is to examine how teens of color in secondary school experience FOMO and how it affects their sense of belonging at one school.

Chapter 3: Methods

This qualitative study utilized a phenomenological design and constructivist worldview to examine how FOMO due to social media use is experienced by teens in their everyday lives. The broader impacts of FOMO could potentially impact student learning and health, and there is a need to understand its effects in order to remedy them and provide support to students, families, and schools. Also, understanding how FOMO affects students of color in particular would provide new insights into this vulnerable population.

Research Questions

This study focused on one primary research question: How do a select group of eight students of color from seventh and eighth grades experience FOMO at one predominantly white independent school?

Description and Rationale for Research Approach

This research was designed with a qualitative approach, a phenomenological design, and constructivist worldview. The fields of anthropology, sociology and the humanities have enabled the development and use of the qualitative research approach (Creswell, 2014). The educational field is therefore an extension of these fields and lends itself to the study of participants in a natural setting, in this case students in a school. The qualitative research approach often relies on open-ended questions, occurs in the natural setting, involves listening carefully to what participants say, and draws subjective meaning from the shared experiences of participants. Qualitative research is interpreted through the lens of the researcher (Creswell, 2014) and thus “the researcher who places him or herself within the qualitative paradigm must set aside all preconceptions,

judgments or prejudices towards a particular topic in order to make an objective analysis of the information participants bring to an investigation” (Padilla-Diaz, 2015, p. 103).

The role of the researcher was a key instrument in this study and they served as data collector and analyzer of the shared experiences. This qualitative study was interested in understanding what impacts FOMO has on social belongingness and social status for students of different ethnic and racial backgrounds in the 7th and 8th grade at one independent school in Northern California.

Philosophical assumptions of a constructivist worldview pose that “individuals seek understanding of the world in which they live and work. Individuals develop subjective meanings of their experiences – meanings directed toward certain objects or things” (Creswell, 2014, p. 8). This study also applied a phenomenological design with face-to-face interviewing. Phenomenological design is grounded in both philosophy and psychology and often utilizes interviewing, the outcome of which is the researcher’s description of “the lived experiences of individuals about a phenomenon” (Creswell, 2014, p. 14). The semi-structured interview is a key component of phenomenological research. The aim is to “allow the researcher and participant to engage in dialog whereby initial questions are modified in the light of the participant’s responses and the investigator is able to probe interesting and important areas which arise” (Smith & Osborn, 2007, p. 57). Benefits of this method include increased rapport with the participant and richer data (Smith & Osborn, 2007).

Semi-structured open-ended questions were used to draw out the voice of the participants about their experiences. The interview used an integrative model that

incorporates questions from several validated studies; the instrument will have reliability and item reliability. Questions examined the psychological needs of belongingness.

Research Design

Research Site and Entry into the Field

The study was conducted at one single independent secondary school in Northern California. The school was located in a rural setting close to several large cities. The secondary school had 50 seventh and eighth grade students, ages 12 – 14. Of the 50 students, 12 were students of color. The school's pedagogical approach was alternative though rigorous in preparing students for success in local private and public high schools. Much of the course offerings were based on student choice and were composed of mixed-age classes. The researcher had been a teacher at the site and worked at the larger school, pre-K through 9th grade, for many years. The participants in this study were seventh and eighth grade students, all of whom are students of color. The group included five students who identified as male and one who identified as female. Participants also identified as Asian (4), South American (1), or Pacific Islander (1). Through the relationships made with students and parents, the researcher asked students if they would participate in the study and was in turn supported by families who learned of the study in a letter and then gave their consent to participate.

Community is important at the research site. Student participation and engagement in the community are considered central to the school culture and practice. The student body is relatively small, most of whom have attended this school or its feeder school for many years, with a few students entering from other schools. Students are encouraged to contribute their ideas, appreciations, and issues in a formal weekly

meeting. When there is a need, students are guided through conflict resolution and restorative justice practices. Social Emotional Learning (SEL) classes are taught and practiced for self growth and understanding. Students are guided by advisors and there is emphasis and work towards inclusion, such as random lunch seating with ice breakers and new students are paired with returning student buddy groups. Additionally, the goal of the school is to help students to know themselves, self advocate, be driven intrinsically, and to be empowered as change agents for the greater good. Through mixed-age and choice-based classes, students have many opportunities to mix and work in small groups with lots of different people. Advisory groups provide a small group to begin the day with and connect with throughout the year. Many students also use the transportation service to get to and from school, and riding on the vans provides another mixing of groups as well as an opportunity to connect in a relaxed setting daily.

Technology is important during the school day, though access and use is limited. This was not a one-to-one school. In a one-to-one school, each student has and frequently uses their own device at school. This school has not allowed the use of cellphones on campus, and students have been asked to turn them off for the school day if they need to use one before or after school. This school mostly uses computers to research and write during the school day and uses desktop computers, laptop computers, and iPads provided by the school site. Students are also provided an online school account with email address through Google. Social media use is not allowed on campus or during the school day.

Access and Permissions. Permission was obtained from the head of school for conducting the study and use of the site. Also, parents of participants were asked to sign informed consent forms in order for their child to participate in the study and so that they were notified of their rights.

Ethical Standards. This paper adheres to the ethical standards for protection of human subjects of the American Psychological Association (2010). Additionally, a research proposal was submitted and reviewed by the Dominican University of California Institutional Review Board for the Protection of Human Subjects (IRBPHS), approved and assigned number 10692.

Participant Protections. Multiple additional steps were followed in the study to protect the participants' rights. These included: sharing of the goals of the research both in writing and in-person along with sharing how the data was used; informing participants that they could withdraw from the study at any time; informing the participants' of data collection protocols; giving all data a pseudonym to keep the participants' identity confidential; and sharing of the transcript of the interviews with the participants and allowing them to make corrections. Lastly, the use of the interview protocol helped mitigate possible disclosure of harmful information from participants.

Methods

Data was collected from October through December 2018. This was done in the form of a semi-structured interview with open-ended questions, with nine questions total (see Appendix A for the full list of questions). The interviews were held in a classroom space at the school and every effort was made to minimize the disruption to the school and the student's schedule. Individual interviews lasted one hour, with all questions asked

in the same order during each interview. The researcher followed an interview protocol to ensure reliability of the data and findings. The researcher conducted all interviews on site. During each interview, the researcher took hand written notes as well as audio recordings, and afterwards transcribed the interviews verbatim. Individual transcriptions were only shared with the participants (and only the transcription of what they had said), providing them each an opportunity to make adjustments or decide at that time if they did not want to participate in the study. The transcriptions and handwritten notes were kept for one year in a locked desk at the researcher's home, after which the documents were shredded. Digital copies were password protected on the researcher's computer and after one year, were erased.

Data Analysis

The researcher read and re-read through all the data, followed by hand coding the data based on emerging information from the participants and segmenting it into categories, beginning after the first interview had been completed. The researcher then decided which data to focus on, based on patterns including those related to belongingness. A rich, descriptive narrative was developed to convey themes discovered, and relied on language from the participants. Composite stories were developed to protect participant identity, in addition to pseudonym use. The researcher utilized best practices to ensure accurate data and analysis and adhered to ethical practices during all steps of the study.

Validity

Various strategies of validation were applied in order to ensure the accuracy of the findings. The strategies implemented included triangulation of different perspectives

from participants, member checking to determine accuracy, seeking discrepant evidence, the use of rich, thick description to share analysis by offering many perspectives on a theme, and the identification of researcher bias, particularly with regard to how background, gender, culture, history and socioeconomic origin shaped the researcher's interpretation of results (Creswell, 2014, p. 201). In this light, the personal beliefs and values of the researcher influenced this work. The researcher was of a different race than the participants, different age, and had different prior experiences that shaped the study, including the researcher's perceptions, observations, and interpretations. The researcher held a position of power, as a teacher and advisor. Effort was made to minimize the impact of the power imbalance, with the option for the participant to leave the study at any time without any repercussions.

Conclusion

A qualitative study with a phenomenological research design using face-to-face interviews was used to examine how FOMO affects students of color at a single independent school in the Bay Area. The researcher conducted semi-structured interviews following an interview protocol and then transcribed and hand coded the data. Pseudonyms and composite stories were used to allow participants confidentiality and anonymity. Validation strategies were used for accuracy of findings, from which themes were identified through the lens of belongingness.

Chapter 4: Findings

The purpose of this qualitative study was to examine how the Fear of Missing Out, FOMO, on social media impacts students of color at one independent secondary school in Northern California. The researcher conducted personal interviews with six students of color in grades seven and eight. Each participant answered nine questions on belonging and FOMO with regards to their social interactions and social media use. The findings showed that students had surprising grassroots systems of support largely disconnected from social media, and that when technology was involved, it was more often through real time gameplay as compared to social networking sites such as Instagram. Live conversation and messaging were a natural extension of interaction and connection when not at school. Specifically, analysis of the data found three main themes: (1) students preferred live conversation and messaging over other delayed social networking responses; (2) students most often connected and preferred connecting through school, thereby keeping it real time; and (3) there were grassroots systems of support that were organic and dynamic that supported students in not feeling overly concerned with FOMO.

Live Conversation and Messaging Versus Delayed Response

In the prevalence of media circulating about youth and social media, this research project found surprisingly little evidence of social media usage among young participants. In fact, many of the students reported not using or having social media at all. There were documented barriers to their usage, including parent rules, but the implication was that social media did not provide sufficient immediate feedback to make it interesting. The students did use technology though, as a means for connecting in real

time scenarios, including texting, live gaming, and help with homework. Students also used different platforms to text, including the iPhone, PlayStation, and video game chat platforms.

Messaging

During interviews, students reported connecting in person as the primary means of communication, whereas texting was the prime second option. Of the six participants, five identified texting as a secondary means of keeping up with what is going on with their peers. Texting was used limitedly to connect with peers for either social inquiry or for help with their homework. Participants preferred this modality for getting immediate help with schoolwork, which was time sensitive as it was often due the next day. Daniel, an 8th year male student who was building his work management skills spoke to this:

Texting, sometimes I'll ask him (a friend) what the homework is because I forgot, or I'll just talk about stuff that's happening at school...But if it is for social purposes, maybe like once a week or something. But if I text I won't be texting for a long time, I'll just ask if they want to hang out or something like that, really short.

It was noted, however, that getting help with finding out what the homework assignment was or how to complete it was also pursued through even more direct means of communication, for instance, as Tyler reported, through, "FaceTime or call because I need help with homework." The common thread in conversations with student-participants was that more immediate responsiveness and the more akin to real conversation, the more preferable the means of communication.

Not Instagram, Surprisingly, But PlayStation

Social media was not used by the majority of the participants. It was found that most of the participants, five of the six, did not have or use Instagram or other popular social media accounts identified in the literature, such as Facebook or Snapchat. There were several reasons given for not having social media including that their parents did not let them have an account due to their age, not owning a smartphone, and even having Instagram but being too lazy to set up an account. For instance, Daniel reported that his parents thought he was too young to have his own social media, but they allowed his older sister who was in high school to have it. He stated, “I don’t have social media. My parents aren’t really into social media at my age, they are okay with it when they get to my sister, because she is older.” Daniel had also grown up with some social challenges with his peers, and this may have been a factor in addition to his age for his parents restricting his participation.

Tyler, an 8th year male student, who was newer to the community and well-liked, did have an Instagram account as his social media and he used it daily to see what his friends were up to, mostly through looking at their recent photos, and said he was on the app twice a day for about 20 to 30 minutes. Compared to similar reported levels of ownership in the literature four of the six participants in this study did own a smartphone but, in contrast, only one student reported checking social media daily, where the literature documented levels closer to 50% (Rideout, 2015).

Instead, Matthew, for example, was an 8th year student who used his PlayStation to connect in real time with his friends. Matthew was a bright student who competed at a high level in his sport outside of school. He enjoyed playing sport games on his

PlayStation as well as watching sports on it through a subscription. He described using the text feature on the video game device in this interview excerpt:

Researcher: How do you keep up with what is going on with your peer group?

Matthew: I just talk to them when I see them, ask them what's going on I guess.

It's pretty much If I see them at school or if they come over, sometimes through the PlayStation but not really. Sometimes when we are just online at the same time we, I guess, text each other on it. But I don't do that that much, it's mainly just in person when I see them at school, or if they come over or if I go to their house.

Researcher: Please describe how you have used social media in the past week?

Matthew: I don't have social media or use it.

Researcher: Can you tell me more about that, being able to text online, what allows you to do that?

Matthew: So on the PlayStation in the home screen there is a messaging thing and then you friend people and then you can like message them I guess. That's really the only form of I guess of social media because I don't have a phone or stuff like that. So no Instagram or Facebook or ...just texting.

Researcher: What can you do on PlayStation?

Matthew: I watch TV on PlayStation and since it's the post season now we got a month long subscription to the TV thingy on it so I can watch baseball, which is nice, other than that I just play games.

Researcher: So when you are using that you have the option of doing messages.

Matthew: Yeah.

Researcher: And that, you would say, is the most social media like thing that you do?

Matthew: Yeah.

The role of live conversation in video game platforms also stood out as a unique and exciting finding that students were using in their lives for connection.

Similarly, being able to play a battle royale game such as *Fortnite* or the basketball game *NBA 2K* with friends, and talking with them stood out as a social highlight for Nathan, an 8th year student who often came across as shy at school and in his classes, but who was though more outgoing in sports, at which he was confident playing in PE and recess. In this excerpt from the interview with Nathan, he speaks to how he participated with his friends, often connecting over inside jokes that arose from those games and led him to feel included socially:

Researcher: When you play (video games) *Fortnite* and *2K* are you able to communicate with people through them?

Nathan: If you have a mic, which I do and everybody else does, you can talk through the mic with your peers or friends or whatever.

Researcher: Can you tell me more about that? Do you play with friends specifically or just people that you have met?

Nathan: You can do either. Normally I just play with my friends, but there are a few people I don't know in real life who I play with online. But you just basically create a party or you can use in-game chat and you just have your mic on and you're able to talk to them and you can communicate with them...If it is *Fortnite* it is like "there is a guy over there" or "I hit him for 30 damage" or something,

and if it is 2K (basketball video game) it is like “Oh, I’m open,” or “I got the rebound” or something like that.

Researcher: Do you have or use social media?

Nathan: No...But like, I don’t know whether, if like, John did some crazy backflip or something on Instagram unless he specifically texted me, or someone else texted me, or somebody told me, or we talked about it playing video games or something. That is one thing about it.

Researcher: Do you feel that it is important to understand the “in” jokes of your friends? Why, or why not?

Nathan: I would say yes, because it makes you feel included and I know someone did a study, it just makes you feel good when you feel included. So yeah, I would say it is important but it’s also at the same time, it is just an inside joke. But I would say if you can know about it I would at least, you know, try or one thing is, just hanging out with your friends sometime a lot of inside jokes are based off of something that happened, so there is a lot of inside jokes of people who play video games together, we have some inside jokes. I’d say just trying to be there for when those things happen is probably the best thing, but it makes you feel included and that makes you feel good.

Though live conversation in-person with peers was the preferred method of connecting, having live conversation and messaging, including through game systems, was found to be a key secondary method. Live conversation or messaging while playing video games were opportunities to connect and bond over shared objectives and inside jokes. Texting, as well as other real time modalities, were important when seeking out time-sensitive

information such as getting help with the nightly homework. This study found that social media use was not prevalent or desired by the participants, as these alternative opportunities for real time interaction and feedback were preferred to connecting on social media, where interaction can be delayed and less interactive.

“Supreme Drop”

There were two students who were an exception and who did use Instagram on occasion. Both provided examples of FOMO in regards to product launches such as the brand Supreme.

Nathan did not have a private account. However, he was conscious of his image and appearance and was interested in keeping up with what his friends were buying, such as a pair of expensive athletic shoes, shared “I will occasionally just look on Instagram or Twitter just for, like, if I am looking at when the next Supreme drop is or something or what is dropping, I’ll know that.” But since he did not have a private account, he did not access his friends' posts. He was primarily interested in brand publicity.

Tyler was the one participant who held an account on Instagram. For Tyler, Instagram was sometimes used to keep up with old friends. He was also conscious of his image and abreast of fashion trends, and expressed interest in the entertainment value that was available in videos:

I like scrolling through pictures just to see what people have been up to, it’s cool.

It is mostly my friends’ pictures, but sometimes I just look at funny videos or something, or I follow a couple news things on Instagram, that and also keeping up to date with old friends that I haven’t seen in a while.

Tyler had moved to the Bay Area a few years ago leaving his old peer group behind and he used Instagram to keep up with them. Another draw for Tyler and the other students was watching recent sports clips, video essays or vlogs, and games or video games on YouTube. YouTube was used by half of the group. Nathan stated, “I am on YouTube a lot, probably because I like watching YouTube.” Tyler said, “I use YouTube to just watch stuff, videos just about soccer or video games when I finish my homework and stuff.”

Connecting through School: Keeping it RealTime

Perhaps not surprisingly, the most relied upon and primary method of connecting was talking to peers while at school. The school day structure, with a varied weekly schedule coupled with a small community, allowed for ample check-in, talking, and time to connect with various peers in different settings. This was the case for Olivia, a 7th year female student who was well-liked and had many friends and who stated, “I mean, like, usually I just talk to them. I know for me I am comfortable talking on the phone and I can call people or over email, but mostly I just come to school and talk to them.” When asked about how he keeps up with what is going on with his peer group, Ethan, an 8th year male student said, “That would be talking. I don’t have social media, so sort of like, I guess, asking them in conversation, mostly at school or over text.” Ethan could come across as introverted, but his smart intellect and wit were appreciated by his peers at school.

Being together at school provided the latest news in the most up-to-date manner. Understanding the in-jokes of peers as a means of acceptance was important and often came from events in school, or the jokes were discussed in school, as well as any new

news. Nathan described this, “The really nice thing about being able to have a phone or being able to go to school with these people, normally if something even minor happens you will know about it because people talk about it in school.” Seeing each other in person also provided opportunities to plan getting together outside of school.

Real in-person time together was the key modality for building, strengthening, and developing relationships with peers. It occurred through this research that the quality of experience was not replicable or improved upon through using technology, nor was it preferred. Tyler, the one student with a social media account on Instagram, shared, “I use text, call, social media, and just talking to them mostly. And it’s mostly talking to them, because I am at school all day with them and I see them on the weekends a lot of times, so I think it is mostly talking.” Tyler had also shared that he was not disappointed that he was not engaging with his peers through social media, even though he did use Instagram to keep up with his old friends from out of state.

Lastly, the amount of time spent at school was a factor in this study. Students are at school for the majority of daylight hours. Here Nathan speaks to the role of time, “Then also just talking with them at school, I am at school normally five days out of seven days of the week, so it really helps to be able to see people because then you can arrange things.”

Grassroots Systems of Support: Organic and Dynamic

Systems of support were evident and enabled students to be and feel cared for. Support systems included families and friends, both in and out of school, with peers on team sports, camp, longtime friendships, and family members among the most common. Some examples of when students turned to these supports included: when they were

having a bad day, feeling unsafe in their neighborhood, or feeling anxious at a high school informational event.

It Hurts In Big Occasions, But...

FOMO was experienced by all participants, despite their access to social media not occurring as a significant factor. FOMO was felt most when there was a large event that many peers were invited to but the participant was not. When asked, “How do you feel when you miss an opportunity to meet up with friends,” participants differentiated between what type of opportunity it was that they might miss. For example, if the event was a rare or novel opportunity, then missing it was viewed as negative, whereas if it was a common everyday opportunity, then missing it was viewed as not as big of a deal. Examples given of rare opportunities included a large birthday party that a lot of people were invited to or a chance to hang out with friends who did not normally extend an invitation. The size of the event and the number of people invited also mattered. Tyler, a well-liked 8th year boy, stated:

If it is like a massive, 20 people group I’ll feel kind of bad. Like if it is just three or four people that is fine because you don’t always have to invite everyone and sometimes, if it is a sleepover or something, your parents don’t let you invite like 20 people.

Not being included in the social plans of others caused disappointment for each of the respondents. The implication was that usually they were not being excluded or left out on purpose.

Daniel, however, shared a story of being excluded by his peer group and how it made him feel. Daniel stated,

I feel bad, I feel left out. I ask “why me, what did I do? Will, one time he had a sleepover and he invited these people and he just left me out of it. It made me feel sad especially because he lives pretty close to me so when I went to the store I saw them all there. So I felt pretty bad.

Daniel was unaware that he was missing out until he ran into his friends together in his neighborhood. Though he was excluded from a smaller group gathering, he still experienced FOMO.

Knowing Versus Not Knowing

Knowing peers' social plans also played into feelings of not belonging and disappointment. The participants shared that when they did not know what their peers were up to that it did not hurt as much. One participant shared that he did not want to come across as annoying when trying to find out what his peers were up to. Another shared that if his friends already had a plan, then it was ok. Olivia, further shared how she'd also rather not know about others' plans anyway: “Sometimes I feel like if they are doing something but they didn't invite you but you still know, that can be a little harder than not knowing. But also still it doesn't affect me that much.”

Networks of Friendship

Though being left out of large group events was identified as hurtful, opportunities to connect outside of school were important. For two participants, these opportunities were facilitated by parents who were friends. Though both boys were close, even though it was not obvious when they were at school, as they had their different interests and friend groups. Nathan had a larger peer group at school, and was active in team sports. Ethan though was not as likely to reach out to make plans with his peers.

However, his close friendship with Nathan, with whom he had grown up, played a role in his ability to connect socially. Nathan addressed that:

One thing, I do live closer to certain people like Ethan, we live decently close and our parents are good friends and I'm good friends with him, so we see each other a good amount during the summer because we just hang out a lot. I always try to text and call people, and normally when we hang out we just go and hang out and chill and it's nothing major usually, occasionally we will do something bigger but usually it is just that. But I will always try to text and call people or my mom will say like, hey, a good thing about my mom being supportive is she will say, hey, Ethan wanted to hang out with you, Ethan wanted to see this movie with you on one of these days. I'll say, I can't do it this day but how about this day. So it is either with me communicating or with my mom communicating.

Nathan appreciated how supportive his mother was in facilitating him seeing Ethan. The fact that they lived close by and could casually hang out outside of school also seems to have played a role in their friendship.

The strength of friendships and the ability to foster new ones was revealed as important within conversations with participants. Daniel had a recent shift in his friend group and because of this, he believed that social media would help him be more up-to-date and included. Daniel felt bad when he missed an opportunity to meet up with friends that he was wanting to spend more time with but was not often included. Daniel describes missing an opportunity to meet up with his friends:

I feel pretty bad. Especially when they are people that I don't hangout with that much, like I used to hang out with Chris a lot, and so if we missed it one or two

times it wouldn't feel that bad, because we always hang out like the next day. But with John, Ryan, or Andrew, they don't really ask me to hang out so when they invite me to hang out with them and I can't go I feel really bad because like, when's the next time going to be? Because I don't really know. So yeah.

In this instance, being on the fringe of a closer group led to Daniel feeling the impact of a missed opportunity that was not often available, with more regret experienced.

A System of Support Was Present For All

Participants reported having multiple people whom they could turn to in times of need, and that they felt cared for by others, including family and friends both inside and outside of school. Additionally, the respondents who identified friends in activities outside of school showed more understanding when not invited to an event by a peer. Nathan shared that, "I feel like if I am in need I always have someone to talk to. A big thing of feeling cared for is being included, and I feel like I am definitely included in things, which is nice." Tyler said, "I obviously have my family, I try to have a couple people at school and a couple people outside of school, people I know from different schools that I play sports with."

Matthew shared about an experience his family had in their new neighborhood. He shared this story when asked if he felt cared for by others:

If something bad happened I guess. By my house there was a shooting so I talked to them about that. Or if I am feeling depressed I talk to them and they cheer me up. It is nice to have friends who can do that. Yeah. Every morning when I come in James comes up and says hi and we start talking about something, and then I

bike to school every day with Ryan and Mike and I have good relationships with them so I think we care for each other.

Systems of support were implemented in organic and varied means. Family and friends offered connection and support that allowed for students to have the need to belong fulfilled. Whereas Matthew found support in the open nature of his neighborhood, Tyler felt grounded with his family, and Ethan and Nathan had both their early childhood history and mother's friendship to rely upon. In lieu of FOMO, which was expected to have a strong influence in the students' lives especially through social media, all of the students reported both the desire for and their sense for connection and belonging woven authentically into their daily interactions.

Conclusion

This study focused on one research question: How do a select group of eight students of color from seventh and eighth grades experience FOMO at one predominantly white independent school? The purpose of this qualitative study was to examine what impacts FOMO has on belongingness and social status on social media sites for these students. The findings revealed that students at this school were not particularly experiencing FOMO on social media. The value of in-person interaction is more interesting to students than those interactions provided by social media (and that are highlighted in the research). An important finding was that students experience connection and belongingness to their peers through in-person interactions at school. Though talking in person was the key method used to connect, the secondary method of connection was messaging and live conversation through video games, text, or other apps. This secondary preference for messaging and live conversation was significant

because these methods provided real time connection for students versus a delayed response, such as occurs with the use of social media sites like Facebook or Instagram. It was interesting to find that video games serve as a platform that allows talking or messaging with fellow players of one's choosing, and in these gaming sessions, bonding and inside jokes occur. Texting and apps like FaceTime provided instantaneous support from peers for those seeking help with homework. Two students reportedly did use Instagram and were attracted to watching for product launches. The one student who held an Instagram account used it to keep up with old friends in a limited capacity. Systems of support were in place for all and allowed students to feel cared for. These systems were made up of family and friends, both through and outside of school. Those students who had active social lives outside of school viewed not being invited to events with more understanding and less disappointment. Finally, parent facilitation and organization of social opportunities was found to be helpful for building social connection among participants in this age group.

Chapter 5: Discussion

There were three major findings as a result of this research. First, with regards to technology, real time conversation (such as through FaceTime) and messaging was preferred over delayed social media responses. Some students also reported that messaging and live conversation during game play (PlayStation) was also a desirable method for connecting. Somewhat surprisingly, Instagram and other social media sites proved not to be prominent or important in these students' lives. Second, and perhaps even more interesting, students most preferred and most often wanted to connect through school. Connecting in school provided opportunities to be up-to-date and in-the-know and abreast of inside jokes. Third, grassroots systems of support were organic and dynamic. All students reported systems of support composed of family and friends both in and outside of school, and acknowledged that participating in activities outside of school were helpful in feeling a sense of belonging and connection.

This chapter examines and compares implications of this study for the literature, suggests implications for practice and policy, acknowledges limitations of the study, and makes suggestions for future research. The review of the literature examined the origin and evolution of the term FOMO, Relative Deprivation Theory, Self-Determination Theory (SDT), and the impacts of FOMO on education, including learning and health. This research sought to look more directly at the gap in research with regards to the experience of FOMO for middle school students of color.

FOMO was found to affect youth more and that FOMO levels decreased with age, thus “younger participants, younger men in particular, tended to report the highest levels

of FOMO” (Przybylski et al., 2013, p. 1846). This study did find that both males and females experienced FOMO, though not necessarily on social media.

Prior research found gaps in socioeconomic and racial and ethnic differences in access to technology, particularly computers and smartphones (Lenhart, 2015). In this study, access to technology did not seem to be the case; participants had computers at home, and four of the six participants had smartphones, with one of the two participants without a smartphone owning their own computer and tablet and the other without a smartphone owning a PlayStation and having access to a computer at home.

In alignment with the literature, self determination theory and belongingness were found to be important drivers of social connection. In this study, students demonstrated a great need for belongingness with their peers which was fulfilled in-person at school. The need to belong was found to be a fundamental human motivation by Baumeister and Leary (1995) and also in this study, as the desire for interpersonal attachments was evident for each participant, as participants felt good knowing the in-jokes of their peers, felt included in most events, and felt they were spending the right amount of time connecting with peers.

Relative Deprivation Theory was found to influence participants' experience in correlation with FOMO, as the literature found. Since relative deprivation is experienced when comparing one's situation with a peer, when students were left out of novel or large gatherings, or did not know what their peers were up to, they experienced some relative deprivation around exclusion.

The findings of this study, however, were at odds with the literature in that students did not experience FOMO on social media. In fact, social media was used by

only two students limitedly, with one student having a social media account and checking it two to three times a day. When compared to the research by the American Academy of Child and Adolescent Psychiatry, 51% of teens checked social media daily and a national average of 75% of teens age 13 to 17 had active social media profiles (American, 2018).

Implications for the Literature

The findings contribute to the literature by adding to the narrative on the impacts of FOMO on social media use with teens and suggests an alternative narrative. This study revealed that instead of social media, real time and in person connections were far more important.

Though teens in this study did own smartphones in the numbers suggested by the literature, texting was used more often than listening to music or using social media, the two most popular smartphone activities for teens. Texting in general was the most adapted technology, and provided something akin to real time interaction when not together. This study also highlights the priorities of middle school students of color. Participants did experience FOMO, however, it was unrelated to viewing on social media others having rewarding experiences from which one is absent. Rather, FOMO was in play when participants were not invited to large gatherings, novel gatherings, or did not receive an invitation to the gathering, and to a small degree, by not knowing what their peers were up to.

Implications for Practice and Policy

Teachers

Based on the findings of this research, teachers can work to help students build connections to peers at school. They can give them time to connect by making space to

do so in class. A natural opportunity to capitalize on this is tapping into the socialization that occurs at the start of class as students are settling in. Rachel Russell (2020) termed this opportunity “taking it slow,” suggesting that if teachers did not plan out every minute of their lesson, they could then relax expectations on learning just after the bell rings, and that there could be positive social emotional benefits for students in nourishing their connections and sense of belonging. Russell describes what this could look like, “imagine a classroom where students could come in, have meaningful conversations with their peers and educators, and ease into the learning of the day in a way that was not rushed?” (p. 76) Another strategy is to “legalize” talking in the classroom, with what Rick Smith (2004) suggests teachers can do if they create good lessons. Making it okay for students to talk in class can be applied in a variety of ways. For example, in a lesson, teacher instructions can be succinct and then followed up with small group work, where students can talk through their learning as they work, preferably in small groups. Other lessons that lend themselves to discussion include Socratic seminar, project work, and book groups. Beyond lessons, teachers can create a space to share in a safe manner, such as touching on an important current event and sharing favorite foods. Committee work for students, for example on the yearbook, or participating in a coding club, also can create time to connect during the school day.

Schools

The findings of this research would suggest that schools might take the lead in developing messaging and collaboration with parents and students around how to handle instances and create inclusion in which FOMO may be experienced, such as more momentous events such as parties and large group gatherings. Schools could also

facilitate, in collaboration with parents, opportunities for students to connect with others outside and on the margins of school. This could include a small group activity such as sports, an after school study group, or an opportunity for students to lead small creative classes, as friendships outside of the school setting can help to mitigate feelings of disappointment and exclusion.

Schools should also develop strategies of collaboration for understanding and nourishing the grassroots networks of support within their individual communities, and provide both space and time for the students to connect meaningfully and relationally appropriate to their needs at these times in their lives. This might include such things as setting limits that benefit students, for example, by having a no cell phone policy during classes. This would provide clear expectations while also allowing for deeper learning and peer connection. Fostering community through community building events, such as a field trip day dedicated to habitat restoration work, and giving students opportunities to connect in a diverse menu of options while at school, for example, engaging in ropes course team building challenges or discussing current events in a Socratic Seminar, can have an impact on school culture and cross peer group connections. Providing advisory groups can also provide a landing place for students in larger school settings.

Policy

Policymakers should develop initiatives to cultivate and support grassroots systems of support and in-person community through school sites. Parent education on “the need to belong” and how this need impacts their adolescent, particularly around group gatherings and social media, could be beneficial in forming a healthy culture both in and out of school. And just as Instagram has created a clear public statement that

addresses groups aimed at sharing pictures and posts about self harm, so too is this a necessity for those who experience FOMO due to what can become a “vicious circle” of social media use and increased FOMO (Beyens et al., 2016; Instagram, 2017).

Policymakers need to oversee the role that targeted advertising and exposure to social media sites has on students, and, in contrast, identify and support the healthy networks of support already rooted to within the experience of students.

Limitations of the Study

Limitations of the study are that the sample size was quite small with six students. The sample did not comprise an equal number of seventh and eighth grade students. Additionally, there was only one female interviewed compared to five males. Researchers have found deficiencies in understanding gender differences in how teens use smartphones, with higher numbers of girls texting and using social media and higher numbers of boys using video games and console access (Lenhart, 2015; Oberst, 2016). Another limitation was the short period of study, as it was conducted over three months. The qualitative approach is also a limitation, as it limited data collection and analysis. Gathering data from students limited the study in that only one cohort contributed their views, and parent, teacher, and principal cohorts did not have an opportunity to contribute. Lastly, by conducting the study at one school in California, findings were further narrow in geographical scope.

Future Research

Implications of the study are that more study is needed on this vulnerable population. Conducting future studies that compare FOMO levels experienced by students of color to the dominant race in their secondary and high school in the Bay Area

could reveal a more accurate snapshot of how it impacts this group of students. Also, further studies that examine the differences between male and female students' experience of FOMO at the secondary school level are needed along with studies that examine the experience of FOMO on student learning and health. This study comprised a one time interview with students, and it is recommended to collect data over time, perhaps the duration of junior high and high school, to establish longitudinal data points. A longitudinal study could better examine how FOMO changes with age. Utilizing participatory action research is also recommended, as it would provide opportunities for more student voice on the lived experiences of participants and their own ideas for the kinds of solutions that would be best for them. Though student interviews were useful, aiming to include more than one interview session and a written reflection on questions would also add valuable insight and more data. Expanding the participant pool beyond students would add valuable perspective and voices, with future work aiming to include teachers, principals, and parents. Mixed method studies conducted in more schools over a wider geographical area would provide a broader picture of how secondary students experience FOMO in regards to belonging, and how this impacts their learning and health. Partnering with social media sites to examine their data on how this population engages with social media use could also provide another lens on this topic.

Conclusion

This study contributes to the research on the FOMO phenomenon on social media and implications for adolescents regarding their learning and health. The findings differed from the key narrative of the research, as students were mostly disinterested in connecting on social media and were interested in connecting in-person at school. Also,

connecting through real-time applications such as video games were preferred when not in-person. Lastly, grassroots systems of support existed and enabled connection both in and out of school. Implications of these findings are that teachers, schools, and policymakers can take actions to help students build successful connections in-person both during and after school, and to cultivate, in general, the conditions for authentic community. Schools and parents can collaborate, for example, to create messaging of inclusion around gatherings, creating time and space for the natural development of relationship, and offer connections to the greater community. Schools might consider setting limits that benefit learning, such as restrictions on cell phone use during school as a way to not limit student interaction but to encourage it in the ways this study found students to both want and feel supported by. Lastly, policymakers can define FOMO on social media and steps users can take if they experience negative impacts due to FOMO. Through conducting this study and learning of the inclusion and limited impacts of FOMO on these students, I feel hopeful. I had framed this study from a deficit point of view, where I sought out more information inline with what the majority of teens were experiencing around FOMO on social media. Instead, I found a positive perspective, that these students were for the most part being included by their peers, and that they all felt supported and connected to friends and family. And surprisingly, they were mostly disinterested in social media and most liked to connect to peers at school. My hope is that others can build on this new narrative and use it to benefit more students one day.

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Appendix A: Interview Questions

1. How do you keep up with what is going on with your peers (classmates, friends, etc.)? (FS Relatedness)
2. Please describe how you have used social media in the past week? (FS Competence)
3. Do you feel that you spend too much, the right amount, or not enough time keeping up with what is going on? Why, or why not? (FS Competence)
4. How do you feel when you know and do not know what your friends are up to? (FS Autonomy)
5. How do you feel when you miss an opportunity to meet up with friends? (FS Relatedness)
6. Do you feel that it is important to understand the “in” jokes of your friends? Why, or why not? (FS Relatedness)
7. How would you describe your need to belong with others and be accepted by them? Why, or why not? (FS Autonomy)
8. How do you feel when you are not included in the social plans of others? Why, or why not? (Frequent Interaction)
9. Do you feel that there are people you can turn to in times of need? Do you feel cared for by others? Why, or why not? (Persistent Caring)

List of potential follow-up questions:

- Can you tell me more about?
- Can you give me an example?